August 17, 1987

INFO WORLD News

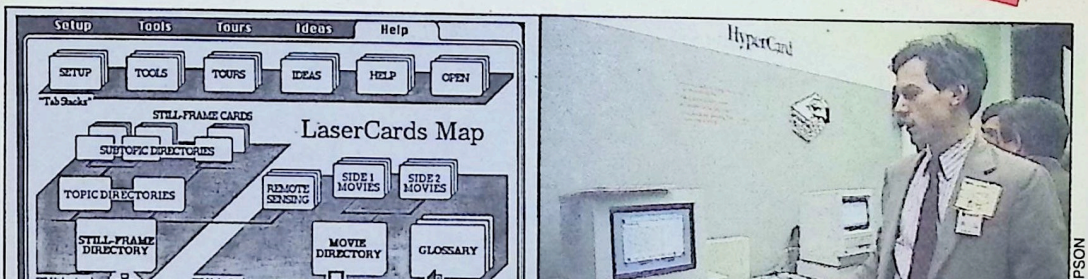
MACWORLD EXPOSITION ROUNDUP

Stackware Integrates Databases

By Edward Warner

BOSTON — Linking themselves to the Hypercard announcement, several vendors unveiled here the first members of a new software class — called stackware — which Apple said will be spawned by the arrival of the product.

Dialog of Palo Alto, California, showed Information Access, an information retrieval product that integrates three databases: a directory of recent articles in 10 U.S. newspapers; the full text of four of the papers, including the *Wall Street Journal*; and a directory of statistical profiles of major U.S. businesses. The product allows users to search the newspaper directory by topic, find the full text of the article, and then gain statistics on the company that was the subject of the article, according to Mike Liebhold, Hypermedia system development manager in Apple's Advanced Technology Laboratory.



JOHN THOMPSON

The screen on the left is from an Optical Data Corp. educational program that combines stackware with a laser disc player. Tim Walker, R&D director of Optical Data, said stackware is ideal for industrial training.

Users "cannot tell they are separate databases," said Liebhold, adding that the concept of Information Access could be applied to any on-line information utility. "You could point and click on a map, and it would log on to a database," he said.

Developer Danny Goodman demonstrated Business Class, a travel planner with a database of facts about 60 nations, including currency and local customs. One of the earliest stackware programs to arrive, Business Class, will be marketed by Activision Corp. of Mountain View, California, and will ship late this month at under $100, he said.

Kevin Kelly, editor of the Sausalito, California-based *Whole Earth Catalog*, said his publication has written scripts with Hypercard that automatically translate chapters of the printed catalog into stackware "cards."

Befitting Hypercard's ability to link diverse concepts, most stackware at the show was designed for educational uses. But products that combine stackware with a laser disc player will be ideal for industrial training, according to Timothy Walker, R&D director of Optical Data Corp., an education-market vendor, in Florham, New Jersey, which makes such a product.

Hypercard also seemed to excite some vendors from the PC sector, including Dan Bricklin, president of Software Garden, in Newton, Massachusetts. "There's been a variety of programs in this area," Bricklin said. "This seems to be the best."

Apple Computer to Introduce Products, Including Programming Aid for Novices

By Brenton R. Schlender
Staff Reporter of The Wall Street Journal

Apple Computer Inc. will introduce today several new products, including a much-heralded, novel software product that makes it easy for nontechnical people to program or customize information in their computers.

Apple will unveil the new products at a trade show it is holding in Boston called MacWorld. In addition to the software product, Apple will introduce a new operating system for its Macintosh that manages several computing tasks at once, a new letter-quality printer and several other communications add-ons to the Macintosh that enable the machines to, among other things, transmit and receive document facsimiles.

But certain to steal the show will be HyperCard, a $49 program, three years in the making, that Apple will give away free with all its new Macintoshes after Aug. 15. HyperCard, which Apple describes as an extension to the Macintosh operating system, is what its author, Bill Atkinson, calls a software erector set" that allows users easily link any kind of data—graphics, even sound—together.

Just as Apple opened up the hardware of the Macintosh personal computer to allow new uses and customization, HyperCard opens up the Macintosh software architecture so that users can write programs, organize and use information in their own ways," said John Sculley, Apple's chairman and chief executive officer.

Analysts who have seen HyperCard were almost uniform in praising it. "Next to the Macintosh itself, HyperCard could well be the most significant product Apple has introduced, because it brings programming into the grasp of the novice," said Tim Bajarin, a market analyst for Creative Strategies Inc. in Santa Clara, Calif. "Apple's only problem is in clearly describing all that HyperCard can do."

In national over-the-counter trading yesterday, Apple shares rose $1.75 to close at $48.25.

Apple is counting on "a whole new genre" of software developers, which it calls "stackware developers," to help it convey the usefulness of HyperCard. Stackware—an Apple-coined word for software containing special data like reference materials, libraries of graphics, catalogs and such, and the means to navigate through them—can be "played" with HyperCard, much like a record player plays a record. The Whole Earth Catalog, for example, will be released later this year as stackware including the same ornate graphics as its original, printed version. Stackware also will work well as a medium for programmed instruction.

HyperCard, Mr. Sculley said, "is the foundation for what we believe will be, in a very short time, a thriving new HyperCard applications industry, built on the expertise of both commercial software developers and subject-matter experts who will create, organize and publish information."

Coupled with Apple's introduction of its new operating system for the Macintosh, called MultiFinder, "the new products put that much more distance between Apple and the IBM world," said Stewart Alsop, publisher of PC Letter, a personal computer industry newsletter. "These are very significant products because they make the personal computer that much more personal."

MultiFinder is Apple's answer to OS/2, the as-yet unreleased operating system being developed by Microsoft Corp. and International Business Machines Corp. for high-performance IBM and compatible personal computers.

Apple's new MultiFinder operating system provides for "fast context switching," in which a Macintosh can have several programs open and waiting on the screen that can be instantly activated and used. After independent software companies adapt their designs, many programs will be able to function in the background even as a user works with another program. The operating system will cost $49 or come free with new computers, and be available Sept. 15.

"MultiFinder was a long time in coming, and probably should have been here a year ago," said Mr. Bajarin of Creative Strategies. "Not everyone will use it, but it does answer a need that some people have, and it's something IBM machines can't do yet."

Apple also will announce a new dot-matrix printer, priced at $1,399, that will rapidly churn out letter-quality documents. And the company will introduce an add-on device, called the AppleFax Modem, costing $699, that allows a Macintosh to communicate directly with high-speed facsimile machines, either sending or receiving documents. Finally, Apple will introduce a plug-in card, called an EtherTalk card, that allows Apple's top-of-the-line Macintosh II computers to communicate directly in networks of personal computers, minicomputers or mainframes made by other manufacturers. That card will cost $699.

San Francisco Chronicle

BUSINESS

Apple Unveiling Key Software

By Don Clark

Apple Computer Inc. will introduce two key software programs for its Macintosh computer today, which some analysts believe will give the company a major advantage over archrival IBM Corp. and makers of IBM-compatible systems.

Leading Apple's new offerings is HyperCard, a system for creating programs that organize text, graphics and other forms of information. The Cupertino-based company considers HyperCard so important that it will include a free copy with each Macintosh sold after August 15, and sell it to existing Macintosh users for only $49.

The same terms will be offered, starting September 15, on MultiFinder. The new software lets users view multiple programs at the same time and perform some functions such as laser printing while continuing to work on other tasks. This long-awaited capability, called multi-tasking, is not expected to be possible until the middle of next year on IBM-compatible machines.

Apple will unveil the programs at Macworld Expo, a trade show that begins today in Boston. It will also announce a $1,399 letter-quality dot matrix printer, a $699 device that lets Macintosh systems send and receive files from facsimile machines and other communications hardware and software.

HyperCard is the product of a three-year development effort by Bill Atkinson, an Apple veteran who developed the Macintosh's well-known QuickDraw and MacPaint software.

It is based on the idea of a card file, with each card equal to a computer screen worth of information. But each card potentially could contain text, graphics, sound and even video.

For example, one pilot program will allow users to call up any product in the Whole Earth Catalog, including photos.

HyperCard, which needs one-megabyte of memory and works best with a hard drive, can search "stacks" of millions of "cards" in just a couple of seconds.

"It has changed the way I use computers, and that is significant," said Stewart Alsop, editor of P.C. Letter in Redwood City, who uses it to organize his phone directory and appointments.

Users can place a variety of special functions on each card and use a simple built-in programming language to create what Apple is cal-

Page 59 Col. 1

APPLE

From Page 54

ling "stackware" — a new class of inexpensive applications programs that Atkinson contends is as revolutionary as the decision to open the Macintosh to add-in hardware vendors.

"My major hope is that this will open up the software architecture of the Macintosh and complete that big dream," Atkinson told reporters at a briefing last week.

Bill Langenes, a research associate at Creative Strategies Inc. in San Jose, estimates 1.3 million copies of HyperCard will have been shipped by the end of 1988 and 1,000 different "stackware" products will be on the market.

The flurry of products illustrates Apple's intent to use software to build on the popularity of its new Macintosh SE and Macintosh II models. The systems' popularity also has triggered greater activity among third-party developers of hardware and software.

Scientific Micro Systems Inc. of Mountain View, for example, yesterday announced plans to buy San Diego-based Levco Corp. SuperMac Technology, a Scientific Micro division that produces one of the only large color monitors for the Macintosh II, will merge with Levco's Macintosh circuit board business.

LA TIMES 8/11

2 New Programs Could Help Apple Stay Ahead of IBM

Software Expected to Spur Sales of Popular Macintosh

By VICTOR F. ZONANA,
Times Staff Writer

CUPERTINO, Calif.—Apple Computer today will unveil a pair of new programs for the Macintosh personal computer that will considerably broaden the machine's capabilities and, according to analysts, help Apple maintain its 12-to-18-month technological lead over IBM.

The first piece of software, known as HyperCard, is essentially a database program that allows Macintosh owners to use and create files that combine information in the form of text, graphics, video, voice, music and animation.

Besides spurring the already hot sales of the Macintosh, which powered Apple to a 42% gain in revenue in its last quarter, analysts predicted that HyperCard would speed the commercialization of new technologies for information storage and retrieval. One such technology that can be used with HyperCard, CD-ROM, employs compact disks that contain hundreds of times more data than the conventional floppy disks used by personal computers.

"Apple has just pushed CD-ROM development ahead by several years," said Jan Lewis, head of Palo Alto Research Group.

The Point Foundation in Sausalito plans to create an audio-visual version of its Whole Earth Catalog on compact disk for use with HyperCard. The entry on "bird watching," for example, will include book reviews, pictures and recorded bird calls.

"Apple is not exaggerating the importance of this product by one iota," Lewis said. "This is a breakthrough product that will create an entire new class of software."

With HyperCard, a user browsing through a videodisk cataloguing 1,500 artworks from the National Galley of Art in Washington could call up images on a television screen of all paintings by Rembrandt, or all impressionist landscapes, or all still-lifes that depict flowers.

"It will be as easy as browsing through a book or wandering through a museum," said Aleen Stein, a partner in Los Angeles-based Voyager Co., which is releasing a HyperCard version of the guide to the National Gallery.

The new technology, analysts said, should keep Apple comfortably ahead of IBM.

"At a time when IBM is moving into Apple's realm by integrating text and graphics, Apple is jumping ahead by integrating all these other kinds of data," said David Carnevale, an analyst for InfoCorp, a Cupertino market research firm.

Please see APPLE, Page 2

APPLE: New Programs

Continued from Page 1

"This is probably the most significant new PC software since the Mac itself made its debut," added Peter Teige, an analyst with Dataquest, a San Jose market research firm.

HyperCard allows users to navigate through data much as the human mind would—by association—in contrast to existing database software, which hews closely to designated guidelines. The software also will allow novices to become programmers, Apple said in a briefing with reporters.

"Finally, we have a program that allows the personal computer to act as a personal agent, even as an extension of our own will," said Bill Atkinson, the Apple scientist who wrote the HyperCard.

The second new program, called MultiFinder, is a new operating system that lets the Macintosh perform up to 30 applications simultaneously. For example, with MultiFinder, a computer user will be able to do financial calculations while writing a letter—without having to go through the cumbersome procedure of exiting one program and entering another.

"It allows people to do things when they want to do them, rather than waiting until another job gets finished," said Stewart Alsop, publisher of the PC Letter in Redwood City.

Macintoshes equipped with special circuit boards will even be able to run software designed for IBM personal computers simultaneously with software specifically made for Apple equipment. This would be the first operating system allowing simultaneous use of software written for the rival computers.

Like HyperCard, the new operating system will give Apple a jump on IBM. The computer industry giant has promised what is known as multi-tasking capability for the Operating System/2 that it plans to deliver next year.

"It looks like Apple has a good shot at proving wrong the conventional wisdom that IBM always wins," Alsop said, suggesting that the Armonk, N.Y., computer giant may be too busy battling Compaq and other makers of IBM-compatible equipment to bother with Apple.

HyperCard and MultiFinder, to be introduced at the MacWorld Exhibition trade show in Boston, come at a time when the market for Macintosh equipment is exploding. Both programs will be packaged with new Macintosh computers at no extra charge and sold to existing Macintosh owners for a nominal fee.

Last month, Apple reported a 65% gain in net income on a 42% increase in sales for its third fiscal quarter, and Chairman and Chief Executive John Sculley recently predicted another 40% gain in sales during the fourth fiscal quarter.

Sculley, at an analysts meeting last month, also said the PC industry as a whole would grow by 25% next year and that Apple's "intent" is to "gain market share."

Sculley noted that the Macintosh has gained a foothold in corporate America because of its utility for desktop publishing, and predicted that the next major growth area will be in desktop presentations—the use of personal computers to make slides, overhead transparencies and flipcharts.

To take advantage of burgeoning demand, Sculley said, Apple is boosting its field sales force by 25% this quarter.